

# Devils Lake Flood Facts



LOCATION OF THE  
DEVILS LAKE BASIN  
WITHIN THE  
RED RIVER BASIN

The Devils Lake basin is a 3,810 square-mile sub-basin of the Red River of the North. At current water levels, the lake itself has no natural outlet.

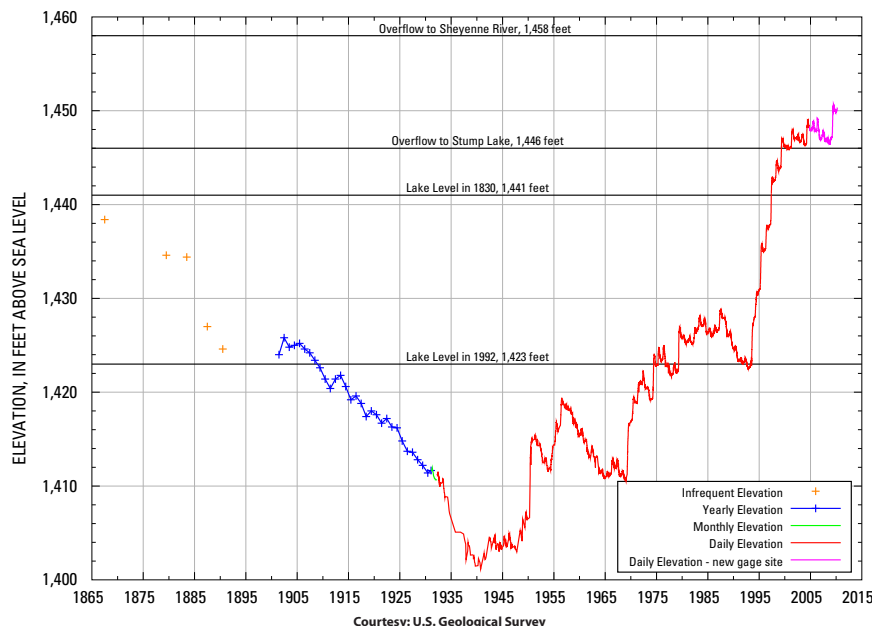
A natural surface water connection from the northeast edge of the Devils Lake basin boundary to the Red River basin has been documented during several years since 1997. This is significant because it has provided a natural route for biota exchange between Devils Lake and the rest of the Hudson Bay watershed.

On April 2, 2010, Devils Lake crept to a new record level, surpassing the previous record of 1450.73 feet above mean sea level (amsl), set on June 27, 2009. *At the time this publication was published, the lake was continuing to rise.*

Devils Lake naturally spills into Stump Lake at 1,446.5 feet amsl. Since water began trickling into Stump Lake from Devils Lake in 1999, Stump Lake has now been filled and has become part of Devils Lake – rising 43.5 feet in the process.

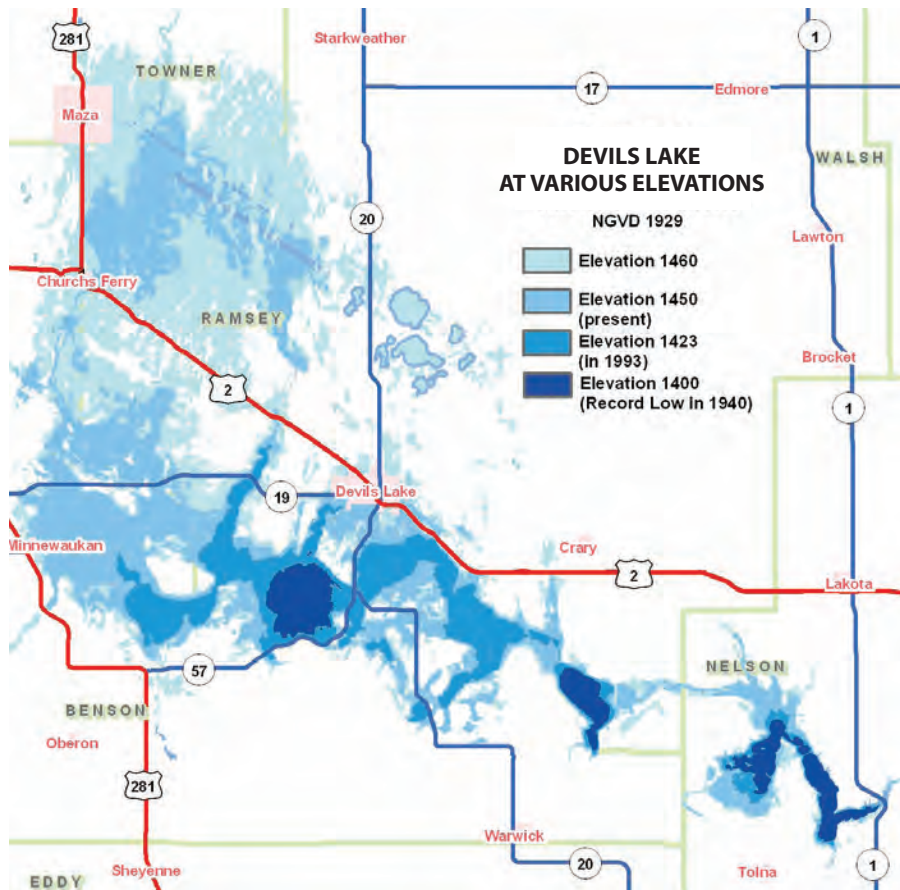
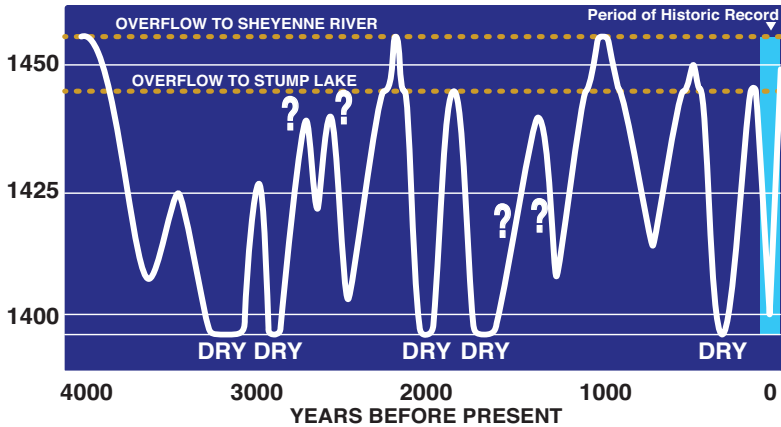
From its lowest 1993 elevation of 1422.62 feet amsl to its end of April 2010 elevation of 1451.5 feet amsl, Devils Lake rose 28.88 feet.

WATER SURFACE ELEVATION, DEVILS LAKE, NORTH DAKOTA



Courtesy: U.S. Geological Survey

## DEVILS LAKE WATER LEVELS: 4000 YEARS OF FLUCTUATIONS



Devils Lake naturally overflows into the Sheyenne River at 1458.0 feet amsl. The Sheyenne River is a tributary of the Red River of the North, which flows into Canada.

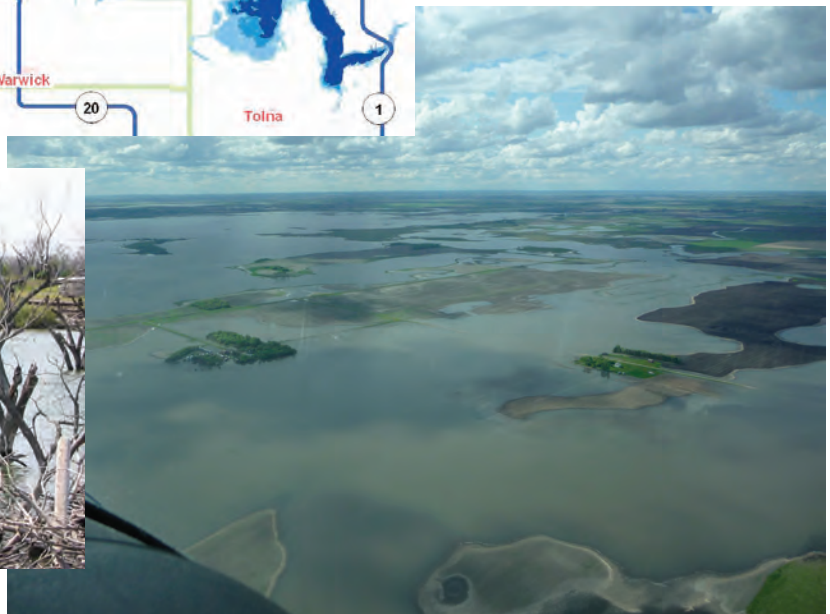
Since glaciation, Devils Lake has been fluctuating from overflowing to dry. This variability is the normal condition of the lake – reflecting climate changes.

Devils Lake has reached its spill elevation of 1,458.0 feet amsl and overflowed into the Sheyenne and Red Rivers at least twice during the past 4,000 years. The last Devils Lake spill into the Sheyenne River occurred less than 2,000 years ago.

At its spill elevation, Devils Lake will cover more than 261,000 acres.

In March 1993, Devils Lake had a surface area of 44,230 acres. At its April 30, 2010 elevation, Devils Lake covered about 177,100 acres – an increase of 132,870 inundated acres, or about 280 square miles. During that same time period, the volume of water in Devils Lake had grown by more than six times.

*Flooded Devils Lake farmland.*





*The Devils Lake levee.*



In response to forecasted lake levels in 2009, the U.S. Army Corps of Engineers began working on another levee raise and extension for the city of Devils Lake. The cost of this project is estimated at about \$100 million.

The city of Minnewaukan continues to be threatened by Devils Lake. The community's school, which is currently at or above capacity, is at an elevation of 1,458 feet amsl, but the city's sewer, water lines, and water tower are expected to start experiencing problems from groundwater and soil saturation at the lake's current elevation.

*The city of Minnewaukan.*



*Another flooded home.*

The State of North Dakota completed construction of an outlet to the Sheyenne River in the summer of 2005. *Specific facts pertaining to the outlet can be referenced from the Devils Lake Outlet section of the State Water Commission website at [www.swc.nd.gov](http://www.swc.nd.gov) (click on Devils Lake Flooding, then Outlet).*

The original outlet pumps were designed for a maximum operating capacity of 100 cubic feet per second (cfs). Modifications constructed in early 2010 will increase that capacity to 250 cfs.



*The Devils Lake outlet.*

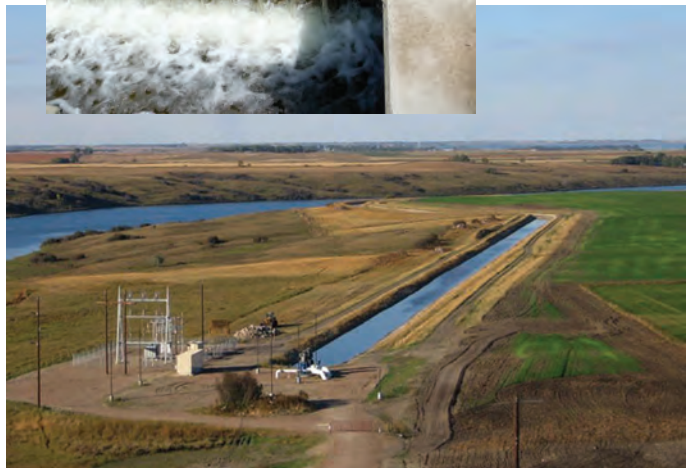




PHOTO: ND TOURISM / DAPHNE KINZLER

■ The Devils Lake area provides world-class fishing and hunting opportunities, attracting sportsmen from all across North America and around the world. It is estimated that fishing alone contributes \$40 million annually to the Devils Lake area economy.



PHOTO: ND TOURISM / DAWN CHARGING

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